



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/672,212

09/26/2003

Maurice Smith

34171

2888

23589

7590

07/20/2009

HOVEY WILLIAMS LLP

10801 Mastin Blvd., Suite 1000

Overland Park, KS 66210

EXAMINER

RIVIERE, HEIDI M

ART UNIT

PAPER NUMBER

3689

MAIL DATE

DELIVERY MODE

07/20/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/672,212	Applicant(s) SMITH ET AL.	
	Examiner HEIDI RIVIERE	Art Unit 3689	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/1/2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-11 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed **1 April 2009** have been fully considered but they are not persuasive.
2. Claims 1-4 and 6-11 were rejected under 35 U.S.C. 112 first and second paragraphs. Further clarity has not been provided in regards to the phrase "establishing a hierarchy" and therefore the rejections are not withdrawn.
3. Claims 1-4 and 6-11 were also rejection under 35 U.S.C. 101 as containing only data and post-solution activity. The limitations provided are unclear as to what solution is sought. The core of the invention is not disclosed and therefore the limitations are directed to nominal ties and post-solution aspects of the claimed invention. Therefore, the rejections are not withdrawn.
4. Please note the newly applied claim objection below.

Claim Objections

1. Claim 1 is objected to because of the following informalities: The phrase "notifying a hierarchy" does not seem grammatically correct. Appropriate correction is required.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make

Art Unit: 3689

and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. **Claims 1-4 and 6-11** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant sets forth "establishing a hierarchy", but does not provide sufficient guidance of direction as to how one skilled in the art would establish this hierarchy without undue experimentation. After reviewing applicant's specification, Examiner is unable to ascertain how applicant intends to establish this hierarchy when applicant has not given any guidance or direction.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112: The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-4 and 6-11 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant claims uploading the report, but has not positively recited creating a report. Claim scope is not limited by claim language that suggests or makes optional but does not require steps to be performed. MPEP 2111.04.

5. New Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant claims that the remote sensing unit acts to properly orient themselves upon hitting the ground. It is unclear as to what applicant means by

Art Unit: 3689

"proper orientation". Is applicant referring to a geophysical orientation achieved by some signal or the orientation of the sensor itself?

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. **Claims 1-4 and 6-11** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In order for a method to be considered a "process" under §101, a claimed process must either: (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials). *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972). If neither of these requirements is met by the claim, the method is not a patent eligible process under §101 and is non-statutory subject matter. Presently, applicant does recite a tie to another statutory class however the tie is nominal since it is essentially providing and gathering data which Examiner has interpreted to be post-solution activity thus insignificant to the overall method steps. Applicant's preamble With respect to claims 1-4 and 6-11, the claim language does not include the required tie or transformation and thus is directed to nonstatutory subject matter.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3689

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1,148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows: 1. Determining the scope and contents of the prior art. 2. Ascertaining the differences between the prior art and the claims at issue. 3. Resolving the level of ordinary skill in the pertinent art. 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. **Claims 1-4, 6-8, and 10-11** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wyatt (US 6490530)** in view of **Barnes (US 6/422,508)**.

2. **With respect to claim 1, (Currently Amended)** Wyatt discloses a method of evaluating a threat posed by substance (reference provides an aerosol hazard classification and early warning network, see abstract), the method comprising the steps of:

a. deploying a plurality of remote sensing units and a control unit adapted to automatically identify the substance; generating a report with the control unit (detector stations capable of measuring and classifying aerosol particles, col. 8 lines 34 -44 and a need for spectroscopic techniques was recognized in the early 1970's, col. 3, lines 5-10, col. 12, lines 20-25, The CPU will collect and process such identification or classification results to determine other aerosol particle properties following the on-board CPU instructions." and col. 14, lines 3-11, "Such information includes estimates of threat characteristics..." and detector

Art Unit: 3689

stations capable of measuring and classifying aerosol particles, col. 8 lines 34 - 44 and "detector stations," are capable of performing a set of scattered light measurements by which the target aerosol particles are well classified and/or identified, one-at-a-time, at each locale where they are detected. Col. 5, lines 25-29);

c. uploading the report to a remote server via a system chosen from the group consisting of a cell phone network and a satellite phone network (detector stations capable of measuring and classifying aerosol particles, and reporting all processed data via integrated telecommunications to a central control station, col. 8 lines 29-45 and col. 3, lines 36-52, "communications/telemetry module") (See also, American Heritage Dictionary "n. The Science and technology of automatic measurement and transmission of data by wire, radio, or other means from remote sources, as from space vehicles, to receiving stations for recording and analysis");

d. notifying a hierarchy of threat response and evaluation authorities, wherein the evaluation authorities include, including a plurality of experts having knowledge relevant to making a high-level threat assessment (interpreted to be the sending of threat analyses to various civil, police, emergency and other agencies responsible for population health and safety throughout and surrounding the monitored region, col. 13 line 65 - col. 14 line 3) (Examiner notes that these agencies are response and evaluation authorities.); and

Art Unit: 3689

e. allowing the hierarchy of threat response and evaluation authorities to access the report on the remote server via a wide area network (interpreted to be the access of various respective threat analyses by civil, police, emergency and other agencies responsible for population health and safety throughout and surrounding the monitored region through telemetry means, col. 13 line 65 - col. 14 line 3) (Examiner notes that these agencies are response and evaluation authorities.).

Wyatt does teach generating a report and the citations above, Wyatt does not teach following, however **Barnes** teaches,

b. the report comprising an image of the substance (Barnes: Col. 5, lines 35-67; col. 6, lines 15-40; col. 10, lines 20-50 – images are gathered, tracked and outputted)

Furthermore, while Barnes does not explicitly disclosed wherein the step of uploading is to a secure remote server. However, it would have been obvious to one of ordinary skill at the time of the invention to have understood and used a secure server since the Barnes system is used for counter-terrorism, counter-proliferation of weapons of mass destruction and rocket tracking for example (Barnes: col. 9).

It would have been obvious and predictable to one of ordinary skill in the art at the time of the invention to combine the teachings of Wyatt and Barnes. Wyatt teaches an aerosol hazard characterization and early warning network. The system monitors aerosol intrusions. The Barnes system teaches a system for robotic control of imaging

Art Unit: 3689

data having steerable gimbal mounted on spectral sensor and methods. The system is robotic controlled and highly mobile. The gas and images are tracked and uploaded.

3. With respect to claim 2, (Previously Presented) Wyatt discloses a method of evaluating a threat posed by a substance, further including the steps of providing the remote server with evaluation tools for automatically evaluating, the report in light of other relevant data (interpreted to be the evaluation of the threat posed by and likely movement of the aerosol cloud by the central station, integrated with meteorological data, col. 13 lines 41 - 43, 51 - 54 and 60 - 63).

4. With respect to claim 3, (Previously Presented) Wyatt discloses a method of evaluating a threat posed by substance (reference provides an aerosol hazard classification and early warning network, see abstract), the method comprising the steps of:

f. deploying a plurality of remote sensing units and a control unit adapted to automatically detect and identify the substance and to provide a corresponding report, wherein the report includes a magnified image of the substance (detector stations capable of measuring and classifying aerosol particles, col. 8 lines 34 - 44 and "detector stations," are capable of performing a set of scattered light measurements by which the target aerosol particles are well classified and/or identified, one-at-a-time, at each locale where they are detected. Col. 5, lines 25-29) (Examiner notes that this results in a magnified image);

Art Unit: 3689

- g. uploading the report to a remote server (detector stations capable of measuring and classifying aerosol particles, and reporting all processed data via integrated telecommunications to a central control station, col. 8 lines 29 - 45);
 - i. notifying the appropriate local reporting authority of the report in accord with the appropriate local reporting policy (threat analyses are sent to various civil, police and' emergency agencies, col. 13 lines 65 - col. 14 line 3);
 - j. establishing a hierarchy of threat evaluators, including a plurality of experts having knowledge relevant to making a high-level threat assessment (interpreted to be the sending of threat analyses to various civil, police, emergency and other agencies responsible for population health and safety throughout and surrounding the monitored region, col. 13 line 65 - col. 14 line 3); and
 - k. allowing the hierarchy of threat evaluators to access the report on the remote server via a wide area network (interpreted to be the access of various respective threat analyses by civil, police, emergency and other agencies responsible for population health and safety throughout and surrounding the monitored region through telemetry means, col. 13 line 65 - col. 14 line 3).
- l. Wyatt discloses all the above limitation, but does not explicitly disclose wherein the determining step is provided by a GPS device located on the remote sensing unit, communicating the actual geographic location to the control unit.

Wyatt teaches the limitations cited in the rejections above, Wyatt does not teach following, however **Barnes** teaches,

Art Unit: 3689

h. determining an actual geographic location of a remote sensing unit detecting the substance using the remote sensing unit, communicating the actual geographic location to the control unit, and identifying an appropriate local reporting authority and an appropriate local reporting policy based upon the actual geographic location of the remote sensing unit detecting the substance; (Barnes: col. 4, lines 35-45; col. 7, line 5- col. 8, line 35; col. 9; col. 11, lines 1-42 – A high capacity cable is attached to the vehicle “the cable can be customized or optimized for various types of communication standards as understood by those skilled in the art; system used for counterterrorism, counter proliferation of weapons etc.; global positioning system used (GPS) data used to compute spectral sensor location; programmed inputs via processing means which uses a GUI interface)

It would have been obvious and predictable to one of ordinary skill in the art at the time of the invention to combine the teachings of Wyatt and Barnes. Wyatt teaches an aerosol hazard characterization and early warning network. The system monitors aerosol intrusions. The Barnes system teaches a system for robotic control of imaging data having steerable gimbal mounted on spectral sensor and methods. The system is robotic controlled and highly mobile. The gas and images are tracked and uploaded.

5. With respect to claim 4, (Previously Presented) Wyatt discloses a method of evaluating a threat posed by a substance, further including the steps of providing the remote server with evaluation tools for automatically evaluating the report in light of

Art Unit: 3689

other relevant data (interpreted to be the evaluation of the threat posed by and likely movement of the aerosol cloud by the central station, integrated with meteorological data, col. 13 lines 41 - 43, 51 - 54 and 60 - 63).

6. With respect to claim 5, Cancelled.

7. With respect to claim 6, (Previously Presented) Wyatt discloses The method as set forth in claim 1, wherein the response authorities are chosen from the group consisting of local first responders, state agencies, state departments, regional agencies, regional departments, national departments, and national agencies (interpreted to be the access of various respective threat analyses by civil, police, emergency and other agencies responsible for population health and safety throughout and surrounding the monitored region through telemetry means, col. 13 line 65 - col. 14 line 3).

8. With respect to claim 7, (Previously Presented) Wyatt discloses The method as set forth in claim 1, wherein the evaluation authorities include experts on subjects chosen from the group consisting of medical issues relating to exposure to chemical substances, medical issues relating to exposure to biological substances, medical issues relating to exposure to radioactive substances, law, law enforcement, policy, doctrinal issues, historical cases, modeling, and simulation(interpreted to be the access of various respective threat analyses by civil, police, emergency and other agencies responsible for population health and safety throughout and surrounding the monitored region through telemetry means, col. 13 line 65 - col. 14 line 3).

Art Unit: 3689

9. With respect to claim 8, (Previously Presented) Wyatt discloses the method as set forth in claim 1, wherein the image of the substance is a microscope-magnified image ("detector stations," are capable of performing a set of scattered light measurements by which the target aerosol particles are well classified and/or identified, one-at-a-time, at each locale where they are detected. Col. 5, lines 25-29) (Examiner notes that this results in a magnified image).

10. With regards to claim 10: Barnes teaches wherein the remote sensing units are deployed by being airdropped into an area containing a potentially hazardous substance (Barnes: col. 4, lines 5-67 - spectral sensor system attached to aircraft to track changes in gas target rate)

It would have been obvious and predictable to one of ordinary skill in the art at the time of the invention to combine the teachings of Wyatt and Barnes. Wyatt teaches an aerosol hazard characterization and early warning network. The system monitors aerosol intrusions. The Barnes system teaches a system for robotic control of imaging data having steerable gimbal mounted on spectral sensor and methods. The system is robotic controlled and highly mobile. The gas and images are tracked and uploaded.

11. With regards to claim 11: (currently amended) Wherein the remote sensing units act to properly physically orient themselves upon hitting ground to properly position various operational elements of remote sensing units. (Barnes: col. 4, lines 5-67 – system steered by operator)

It would have been obvious and predictable to one of ordinary skill in the art at the time of the invention to combine the teachings of Wyatt and Barnes. Wyatt teaches

Art Unit: 3689

an aerosol hazard characterization and early warning network. The system monitors aerosol intrusions. The Barnes system teaches a system for robotic control of imaging data having steerable gimbal mounted on spectral sensor and methods. The system is robotic controlled and highly mobile. The gas and images are tracked and uploaded.

12. **Claims 3 and 4** are also rejected under 35 U.S.C. 103(a) as being unpatentable over **Wyatt** in view of **42 USC 11023 (a)** (enacted October 17, 1986).

13. **With respect to claim 3**, Wyatt discloses a method of evaluating a threat posed by substance (reference provides an aerosol hazard classification and early warning network, see abstract), the method comprising the steps of: deploying a plurality of remote sensing units and a control unit adapted to substantially automatically identify the substance and to provide a corresponding report (detector stations capable of measuring and classifying aerosol particles, col. 8 lines 34 - 44); uploading the report to a remote server (detector stations capable of measuring and classifying aerosol particles, and reporting all processed data via integrated telecommunications to a central control station, col. 8 lines 29 - 45); establishing a hierarchy of threat evaluators, including a plurality of experts having knowledge relevant to making a high-level threat assessment (interpreted to be the sending of threat analyses to various civil, police, emergency and other agencies responsible for population health and safety throughout and surrounding the monitored region, col. 13 line 65 - col. 14 line 3); and allowing the hierarchy of threat evaluators to access the report on the remote server via a wide area network (interpreted to be the access of various respective threat analyses by civil,

Art Unit: 3689

police, emergency and other agencies responsible for population health and safety throughout and surrounding the monitored region through telemetry means, col. 13 line 65 - col. 14 line 3).

14. In the event that **Wyatt** may be determined not to disclose the remaining limitations of **claim 3, 42 USC 11023(a)** teaches the remaining limitations of claim 3.

15. **42 USC 11023 (a)** requires that the operator of a facility subject to the requirements of the section complete and submit a toxic chemical release form to the EPA Administrator and to an official or officials of the State designated by the Governor of the respective state. 42 USC 11023 (a) is therefore interpreted to provide a method of identifying an appropriate local reporting authority (the State in which the toxic chemical was released) and an appropriate local reporting policy based upon an actual geographic location of the substance (the Governor of the State in which the toxic chemical was released designates official(s) for the report to be submitted to, i.e. a local reporting policy). 42 USC 11023 (a) is also interpreted to provide a method for notifying the appropriate local reporting authority of the report in accordance with appropriate local reporting policy (a report must be submitted to an officials designated by the Governor of the State). Thus, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the method of Wyatt with local reporting and associated policies based on geographic locations required by 42 USC 11023(a) in order to provide a more efficient and useful method of evaluating a threat posed by a substance.

Art Unit: 3689

16. **With respect to claim 4**, Wyatt discloses a method of evaluating a threat posed by a substance, further including the steps of providing the one or more data processing and storage servers with evaluation tools for substantially automatically evaluating the report in light of other relevant data (interpreted to be the evaluation of the threat posed by and likely movement of the aerosol cloud by the central station, integrated with meteorological data, col. 13 lines 41 -43, 51 - 54 and 60 - 63).

17. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Wyatt** as applied to claim 1 above, and further in view of **Ishizaka et al. (U.S. 5,077,010)** (Hereinafter referred to as **Ishizaka**).

18. **With respect to claim 9, (Previously Presented)** Wyatt discloses the above method steps, Wyatt does not explicitly further comprising collecting the substance with a sample examination cassette including: a roll of filter paper for receiving the substance; a roll of film providing an impermeable barrier for isolating the substance; and an archive spool for collecting the roll of filter paper and the roll of film. However, Ishizaka teaches a long- test-film cassette for biochemical analysis and system for loading the same which teaches a roll of filter paper for receiving the substance (Ishizaka, Fig 1, item 7); a roll of film providing an impermeable barrier for isolating the substance (Ishizaka, Fig 1, item 3); and an archive spool for collecting the roll of filter paper and the roll of film (Ishizaka, Fig 1, item 2). It would have been obvious to combine the aerosol hazard characterization and early warning network of Wyatt with the long-test-film cassette for biochemical analysis of Ishizaka in order to record and

Art Unit: 3689

archive the data produced from the system of Wyatt, since so doing could be performed readily and easily by any person of ordinary skill in the art, with neither undue experimentation, nor risk of unexpected results.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heidi Riviere whose telephone number is 571-270-1831. The examiner can normally be reached on Monday-Friday 9:00am-5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janice Mooneyham can be reached on 571-272-6805. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. R./
Examiner, Art Unit 3689

/Janice A. Mooneyham/
Supervisory Patent Examiner, Art Unit 3689